

SOW Amendment
Bunker Hill Five-Year Review, Task Order 009-FR-FE-10Y4
Region 10 AES Contract No. 68-S7-04-01

The contractor shall revise the scope to include the following:

- I. Government Gulch engineering and technical support services
- II. Page Ponds technical support services

Ed Moreen and Angela Chung will be nominated as Alternate TOPOs to this task order.

The additional scope is discussed in greater detail below.

I. Government Gulch Engineering and Technical Support Services

The direct contact for this work will be Ed Moreen (ATOPO).

PURPOSE

The purpose of this scope addition to Task Order # 9 is to provide engineering and technical support services during the ongoing evaluations, investigations, and analyses of Phase I and the potential implementation of Phase II remedy in Government Gulch. EPA and the State of Idaho implemented parts of the remedy in Government Gulch in 1996-1998 as prescribed by the Bunker Hill Mining and Metallurgical Complex OU-2 ROD. Certain components of that ROD remain to be implemented, while the initial implementation effectiveness is being assessed. This task order will provide engineering services, technical documentation and meeting support to further support the effectiveness evaluation and evaluation of potential Phase II remedies implementation.

BACKGROUND

Government Gulch is the historic location of several ore processing and acid/fertilizer producing facilities. Several wastewater ponds (typically unlined) and material stockpiles were also located on the floor of the gulch. Much of the subsurface soils were found to be highly contaminated to about 10 feet below ground surface, especially in the industrial parts of the gulch. Government Creek, which historically flowed down the center of the gulch in a meandering pattern, was modified during the active ore processing period, specifically in the area of between the Zinc and Phosphoric Acid Fertilizer Plants. To provide space for the processing facilities, the creek was re-routed from the east side of the gulch above the Zinc Plant in pipes and open channels to a shot-creted open channel (which deteriorated significantly over time) located on the west side of the gulch below the Zinc Plant. As Government Creek flows north, it crosses under McKinley Avenue and eventually crosses under I-90 to discharge into the SFCDR. As part of the USEPA's 1990 AOC with Gulf Resources and Hecla Mining, sediment retention gabion dams were constructed in Government Creek to settle sediment from surface water.

Phase I remedial actions were implemented in 1996-1998, permanent remedial solutions were given preference over remedial actions focusing on conventional treatment methods that would result in a larger O&M cost burden after remedy implementation. The objective of the Government Gulch Phase I remedial action was to maximize the removal of contaminated source material from the gulch. The lining of Government Creek, groundwater cutoff walls, and conveyance of the creek through the site were deferred until the benefits of

the increased source removals on Government Gulch surface water and ground water could be evaluated.

Recently the State of Idaho has approached EPA about placing contaminated fill in Government Gulch to build up grades in order to better provide land reuse opportunities to the community. If fill is going to be placed in the gulch, it will require highly competent technical evaluation and design to avoid impacts to existing remedies and may provide a suitable vehicle to implement parts or all of the Phase II remedies for Government Gulch. Technical services are required for EPA to engage the state on this topic and is the nature of this sub-task.

Government Gulch Task

Task 6 - Site Investigation/Technology Review (SI)

1. Technical Document Review and misc. engineering services. The contractor shall provide engineering and technical services to assist in the discussion of additional remedy implementation and impacts on existing remedies. Consistent with historic activity at this site, the contractor will be called upon to provide a design review or technical evaluation of technical memorandums, conceptual designs and other technical documents. Performing this work will involve travel to the site for evaluation and reviews. For estimation purposes, assume 5 trips during the period of performance.

2. Technical document preparation. The contractor should provide technical memoranda, design information and other technical documents that describe the engineering and technical assistance provided, as requested. For example, there may be data requests. In these instances, the information should be documented in a technical memo for the file and the team members. The document should describe the situation and the requested information with summary a format that is useful to the team as well as the funding agencies. For estimation purposes, assume that 8 reports are required over the period of performance.

3. Technical support at meetings. The contractor should prepare for and attend technical meetings involving the ongoing discussions regarding Government Gulch Phase II remedy implementation. For estimation purposes, assume 8 trips to Coeur d'Alene.

PERIOD OF PERFORMANCE: February 1, 2006 through January 31, 2007

SCHEDULE OF DELIVERABLES/MILESTONES

II. Page Pond Task – Site Investigation/Technology Review (SI)

Task	Deliverable	Due Date
Technical Document Preparation	Tech Memos	30 days after request is made.

The direct contact for this work will be Angela Chung (ATOPO).

Purpose

The purpose of this scope addition is to provide engineering and technical support services for the ongoing evaluation, investigation, and analysis of the Page Pond remedy in OU 2. The Page Pond remedy, as described in the OU 2 ROD and the 1994 Consent Decree with the Upstream Mining Group (UMG) remains to be fully implemented. This task order will provide engineering services, technical documentation, and meeting support to support the implementation of the Page Pond remedy and monitoring program.

Background

Remedial actions for the Page Pond area were selected in the 1992 OU 2 ROD. In 1994, EPA and the State of Idaho entered into a Consent Decree with the Upstream Mining Group (UMG). The 1994 Consent Decree included a commitment by UMG to implement the Page Pond remedy, which was described as a wet closure plan. The goal of the plan was to reduce exposure to contaminated sediments in the West Page Swamp by submerging sediments by at least two feet of water. The wet closure plan was premised on the assumption that effluent discharge from the Page Wastewater Treatment Plant (WWTP) would be diverted to the West Page Swamp. For a number of reasons, diversion of the WWTP effluent has been determined to be too difficult to implement at this time. In addition, the local community has been in dire need of additional disposal space at the Page Repository to help support the Institutional Controls Program and local development projects. Therefore, the current proposal is to pursue dry closure of the Page Pond area to meet the OU 2 ROD objectives.

Page Pond Task

Task 6 – Site Investigation/Technology Review (SI)

1. The Contractor shall review and summarize OU 2 RI/FS and ROD data, and other relevant data pertaining to Page Pond. Other data may include reports prepared by the Upstream Mining Group, reports and correspondence related to the Page wet closure plan, and associated monitoring recommendations. This review also shall include technical and cost data related to diverting Grouse and Humboldt Creeks from the Page Pond area. The information shall be summarized in a technical memorandum.
2. The Contractor shall summarize the water quality data related to groundwater/surface water interactions and metal and nutrient loadings associated with Page Ponds. The summary shall quantify the environmental benefit from diverting water from the contaminated Page Pond area, assuming dry closure. This summary shall identify the existing sampling collection points and results indicating the metals load from the Page Pond area. The summary also shall identify data gaps and recommend additional sampling to address these gaps. If possible, the Contractor shall delineate data to show the metals load from the WWTP lagoons versus the West Page Swamp. The information shall be summarized in a technical memorandum.
3. Based on the information reviewed and evaluated in items 1 and 2 the Contractor shall develop recommendations for a Page Pond area monitoring plan to evaluate the remedial effectiveness of dry closure.

Travel: For estimation purposes, assume 2 trips during the period of performance for technical support at meetings.

PERIOD OF PERFORMANCE: February 1, 2006 through January 31, 2007

SCHEDULE OF DELIVERABLES/MILESTONES

Task	Deliverable	Due Date
1 Summarize historical Page Pond data and plans	Tech Memo	21 days after finalization of work plan amendment
2 Summarize Page Ponds water quality data	Tech Memo	6 weeks after finalization of work plan amendment
3 Prepare Page Pond monitoring recommendations	Tech Memo	6 weeks after finalization of work plan amendment